Joint Tactical Radio System (JTRS)

Industry Day

LTG William H. Campbell

Director of Information Systems for Command, Control, Communications, and Computers

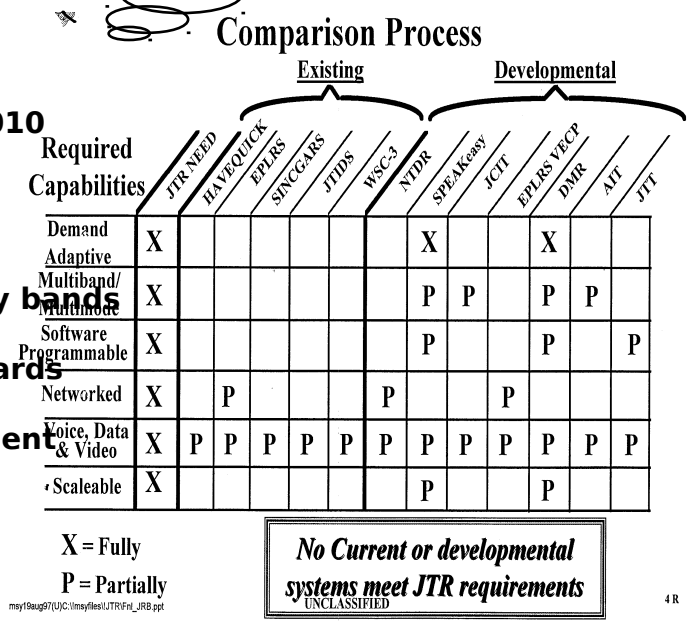
17 Nov 98

Problem

JTRS ENHANCES JOINT INTEROPERABILITY

SHORTFALLS OF EXISTING SYSTEMS

- **Interoperability limitations**
- **Insufficient Bandwidth to support JV 2010**
- **Multiple Logistical Support Systems**
- **Inflexible Technology**
  - **Cannot operate in multiple frequency bands and on multiple waveforms**
  - **Does not employ open system standards**
  - **Limited transmission rates**
  - **Requires complex network management**



Vision

Current Systems
(25-30 Families)

- Navigation
- Positioning
- Location
- Identification
- Air to Ground
- Air to Air
- Ground to Ground
- SATCOM

AN/PSQ-6A EPLRS

AN/ARC-210

AN/WCS-3 UHF SATCOM/LOS

AN/ARC-201A SINCGARS

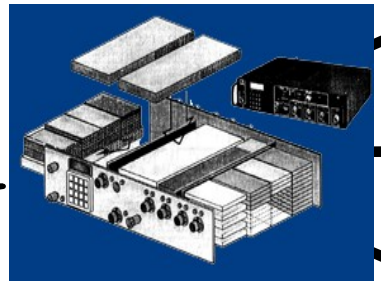
ANPRC-119 SINCGARS

AN/PSC-5

Commercial Waveforms; New Military Waveforms

Common Technology Base

nt Solutions
(1 Family)



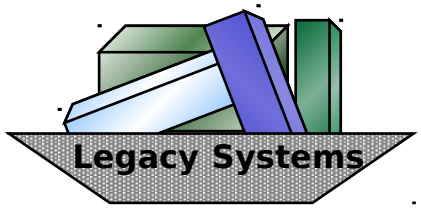
(Notional) Common Training Open Systems

DOMAINS

- **Airborne**
- **Ground Forces**
  - Hand held
  - Dismounted
  - Vehicular
- **Maritime/ Fixed Station**

Acquire a Family of Affordable, High-capacity Tactical Radios to Provide Interoperable LOS/BLOS C4I Capabilities to the Warfighters.

Migration Process



UHF Radios

VHF Radios

HF Radios

Data

Voice

Video

Frequency bands

MODES

- Legacy Interoperability
- Incorporate commercial waveforms
- Networked
- Greater capacity
- Cost effective

JTRS

Characteristics

- Traditionally operate in a single frequency band & in a single mode
- Complex network management
- Limited networking capability
- Proprietary standards

Phased implementation over time

Core Characteristics

- Software programmable
- Multi-band; multi-mode - (Voice, video & data)
- Backwards compatible with legacy systems
- Modular design
- Scaleable /Extendible
- Flexible form factor (Family of radios)
- Demand adaptive (Dynamic Bandwidth Management)
- Networked
- Open systems architecture

Program Commitment

- **USD (A&T) 10 Apr 98 Memorandum**
  - Minimization of new development programs
  - Migrate existing radio-based communication development programs into a single program
- **OASD (C3I) Memorandum 28 Aug 98**
  - Halted efforts to develop and acquire any radio system
  - Provided limited waiver for DMR, AITG and NTDR programs
    - Service Acquisition Executive may submit additional waivers
- **OIPT Memo Oct 98:** Approved acquisition strategy
- **Services developing migration plans**
  - First Look Today

DoD committed to making JTRS vision a reality

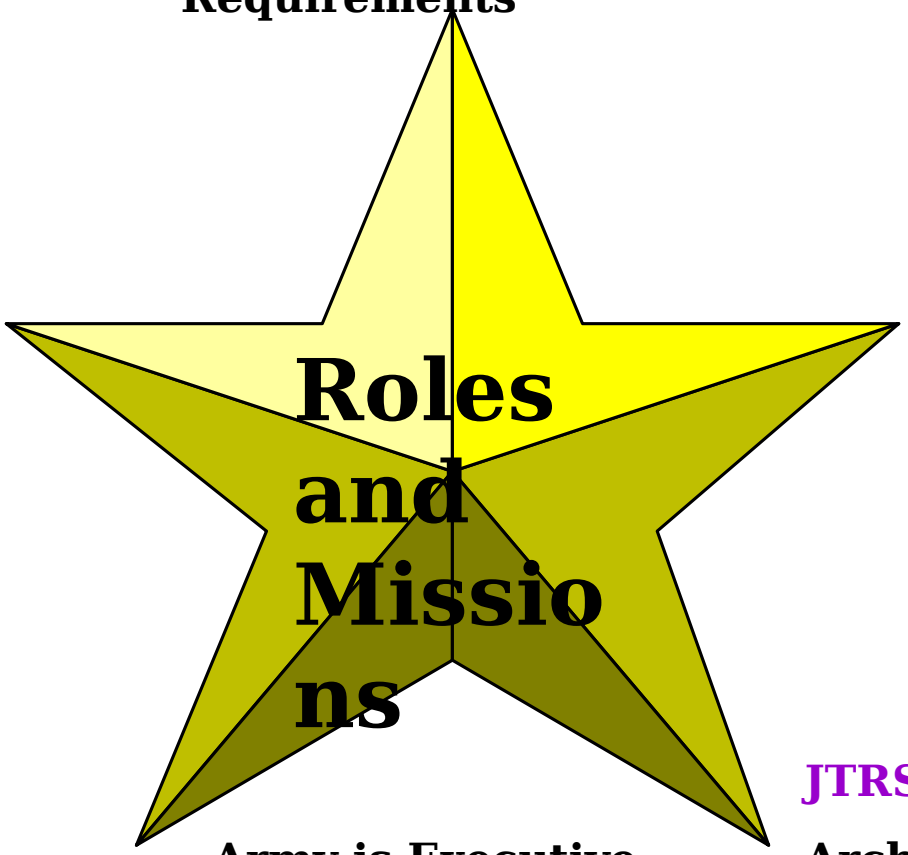
Key Players

War fighters:
Requirements

Service PMOs:

Procurement

Platform Integration



OSD: Review & Oversight

Industry:

Define Architecture

Advance Technology

Army is Executive Service

JTRS JPO: Manage

Architecture Development

& Software Infrastructure

Key Points

- **JTRS is a funded program**
- **Services planning legacy system migration to JTRS architecture**
- **Government/Industry participation key to success**
- **Unique opportunity to refine CONOPs**
  - Provide a critical capability to the warfighters

JTRS is an enabler for interoperability;
we must work together to